

ABSTRACT

Gas chromatographs of the invention generally comprise four or more analysis channels. Specifically, four or more gas chromatography columns are configured for parallel analysis of four or more gaseous samples with detection being effected using a microdetector array comprising four or more microdetectors. In one embodiment, the four or more microdetectors 510 are microfabricated detectors, and are integrally formed with a substrate or with one or more microchip bodies mounted on a substrate. In a preferred embodiment, a microdetector array comprises four or more thermal conductivity detectors having one or more thin-film detection filaments. A preferred heated environment for highly parallel gas chromatographs is also disclosed.